



AGOSTON ET AL.

Art Unit: 1616

Examiner: **BADIO, B**

For: **METHODS OF OBTAINING
2-METHOXYESTRADIOL OF HIGH PURITY**

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents
P.O. Box 2327
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Sir:

The citation of information on the attached Form PTO/SB/08A, "Information Disclosure Statement by Applicant" is made pursuant to 37 C.F.R. §§ 1.97 and 1.98. A copy of each cited item is enclosed. Pursuant to 37 C.F.R. §1.97(c), the fee of \$180.00 set forth in 37 C.F.R. § 1.17(p) also accompanies this statement

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Jeffery B. Arnold - Reg. No. 39,540

PATENTS

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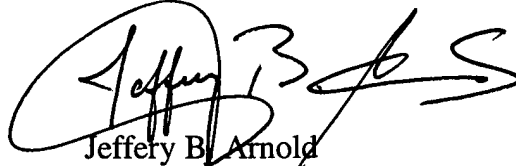
Information Disclosure Statement

Serial No. 09/644,387

Page 2

Charge any additional fees required to Deposit Account 11-0855.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffery B. Arnold", is written over a circular stamp. The signature is fluid and cursive.

Jeffery B. Arnold

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Our Docket: 05213-0541 (43170-219662)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 8

Complete if Known

Application Number	09/644,387
Filing Date	August 23, 2000
First Named Inventor	Gregory Agoston, et al.
Group Art Unit	1616
Examiner Name	Badio, B.
Attorney Docket Number	05213-0541 (43170-21962)

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA	2,584,271		Huffman, Max N.	02-05-1952	
	AB	2,846,453		Hoehn, Willard M.	08-05-1958	
	AC	3,410,879		Smith, Herchel, et. al.	11-12-1968	
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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
			WO 90/15816		The UpJohn Company	12-27-1990		
	AZ		WO 93/03729		Research Corporation Technologies, Inc.	03-04-1993		
	BA		WO 95/04535		The Children's Medical Center Corporation	02-16-1995		
	BB		WO 98/40398		Pharm-Eco Laboratories, Inc.	09-17-1998		
	BC		DE 3625315		Schering A.-G	01-28-1988		
	BD		DE 1907330		Sandoz Ltd.	10-23-1969		

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OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS

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CA	✓	Adams, E.F. et al., "Steroidal regulation of oestradiol-17B dehydrogenase activity of the human breast cancer cell line MCF-7", <u>Journal of Endocrinology</u> , Vol. 188, pp. 149-154 (July 1988)
CB	✓	Aizu-Yokota, et al., "Natural Estrogens Induce Modulation of Microtubules in Chinese Hamster V79 Cells Culture", <u>Cancer Research</u> , Vol. 55, pp. 1863-1868 (May 1, 1995)
CC	✓	Attalla, et al., "2-Methoxyestradiol Arrests Cells in Mitosis without Depolymerizing Tubulin", <u>Biochem. and Biophys. Resch. Comm.</u> , Vol. 228, pp. 467-473 (1996)
CD	✓	Ayala, et al. "The Induction of Accelerated Thymic Programmed Cell Death During Polymicrobial Sepsis: Control by Corticosteroids but not Tumor Necrosis Factor", <u>Shock</u> , Vol. 3, No. 4, pp. 259-267 (April 1995) (Abstract Only)
CE		Banik, et al., "Orally Active Long-Acting Estrogen (3-(2-propynyloxy)-estra-1,3,5 (10) - trien - 17.beta.-ol trimethylacetate)", <u>Steroids</u> , Vol. 16, No. 3, pp.289-296 (1970) (Identifier Only)
CF	✓	Bardon, et al., "Steroid Receptor-Mediated Cytotoxicity of an Antiestrogen and an Antiprogesterin in Breast Cancer Cells", <u>Cancer Research</u> , Vol. 47, No. 5, pp. 1441-1448 (March 1, 1987) (Abstract Only)
CG		Bhat, et al., "Estradiol-induced Mitotic Inhibition in the Bursa of Fabricius of Male Domestic Duckling", <u>Mikroskopie</u> , Vol. 39, pp. 113-117 (May 1982)
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CI		Blickenstaff, et al., "Estrogen-Catharanthus (Vinca) Alkaloid Conjugates", <u>Cytotoxic Estrogens in Hormone Receptive Tumors</u> , Academic Press, pp. 89-105 (1980)
CJ	✓	Boyé et al., "185. Deaminocolchinyll Methyl Ether: Synthesis from 2,3,4,4'-Tetramethoxybiphenyl-2-carbaldehyde. Comparison of Antitubulin Effects of Deaminocolchinyll Methyl Ether and Dehydro Analogs", <u>Helvetica Chimica Acta</u> , Vol. 72, pp. 1690-1696 (1989)
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CL		Brosens, et al., "Comparative Study of the Estrogenic Effect of Ethinylestradiol and Mestranol on the Endometrium" Laboratory for Gynecological Physiopathology, Vol. 14, No. 6, pp. 679-685 (December 1976)
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Attorney Docket Number	05213-0541 (43170-21962)

OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS

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	DA ✓	Chen, et al., "A New Synthetic Route to 2- and 4-Methoxyestradiols by Nucleophilic Substitution" <u>Steroids</u> , Vol. 47, No. 1, pp. 63-66 (January 1986)	
	DB	Chen, et al., "Synthesis of 11.beta.-(4-dimethylaminophenyl)-17.beta.-hydroxy-17.alpha.-(1-propynyl) estra-4,9-dien-3-one (RU486)", <u>Nanjing Yaoxueyuan Xuebao</u> , Vol. 17, No. 4, pp. 282-285 (1986) (Identifier Only)	
	DC	Cohen et al., "Novel Total Synthesis of (+)-Estrone 3-Methyl Ether, (+)-13B-Ethyl-3-methoxygona-1,3,5(10-triene-17-one, and (+)-Equilenin 3-Methyl Ether", <u>The Journal of Organic Chemistry</u> , Vol. 6, pp. 681-685 (March 21, 1975)	
	DD	Collins, et al., "The Structure and Function of Estrogens. XI* Synthesis of (=/-)-7(8-11α)-abeo-Estradiol and its 9,11-Didehydro Derivative" <u>Aust. J. Chem.</u> , Vol. 45, pp. 71-97 (1992)	
	DE ✓	Cummings, et al., "Apoptosis", <u>Am J. of Surgical Pathology</u> , Vol. 21, No. 1, pp. 88-101 (1997)	
	DF ✓	Crum et al., "A New Class of Steroids Inhibits Angiogenesis in the Presence of Heparin or a Heparin Fragment", <u>Science</u> , Vol. 230, pp. 1375-1378 (December 20, 1985)	
	DG ✓	Cushman, et al., "Synthesis of Analogs of 2-Methoxyestradiol with Enhanced Inhibitory Effects on Tubulin Polymerization and Cancer Cell Growth", <u>J. Med. Chem.</u> , Vol. 40, No. 15, pp. 2323-2334 (July 1997) (Abstract Only)	
	DH ✓	Cushman, et al., "Synthesis, Antitubulin and Antimitotic Activity, and Cytotoxicity of Analogs of 2-Methoxyestradiol, an Endogenous Mammalian Metabolite of Estradiol that Inhibits Tubulin Polymerization by Binding to the Colchicine Binding Site", <u>J. Med. Chem.</u> , Vol. 38, No. 12, pp. 2041-2049 (1995)	
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	DJ ✓	Dvir, et al., "Thin-layer Chromatography of DANSYL-oestrogens", <u>J. Chromatog.</u> Vol. 52, pp. 505-506 (1970)	
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	DM ✓	Fishman, Jack, "Synthesis of 2-Methoxyestrogens", <u>J. Am. Chem. Soc.</u> , Vol. 80, pp. 1213-1216 (1958)	

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OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS

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EA	✓	Fitzgerald, "Molecular Features of Colchicine Associated with Antimitotic Activity and Inhibition of Tubulin Polymerization", <u>Biochem. Pharmacol.</u> , Vol. 25, pp. 1383-1387 (1976)
EB	✓	Fotsis, et al., "The Endogenous Oestrogen Metabolite 2-Methoxyestradiol Inhibits Angiogenesis and Suppresses Tumour Growth", <u>Nature</u> , Vol. 368, pp. 237-239 (March 17, 1994)
EC	✓	Getahun et al. "Synthesis of Alkoxy-Substituted Diaryl Compounds and Correlation of Ring Separation with Inhibition of Tubulin Polymerization: Differential Enhancement of Inhibitory Effects Under Suboptimal Polymerization Reaction Conditions", <u>J. Med. Chem.</u> , Vol. 35, pp. 1058-1067 (March 20, 1992)
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EE	✓	Haldar, et al., "Bc12 is the Guardian of Microtubule Integrity", <u>Cancer Research</u> , Vol. 57, pp. 229-233 (January 15, 1997)
EF	✓	Hamel, et al., "Interactions of 2-Methoxyestradiol, an Endogenous Mammalian Metabolite, with Unpolymerized Tubulin and with Tubulin Polymers", <u>Biochemistry</u> , Vol. 35, No. 4, pp.1304-1310 (1996)
EG	✓	Hartley-Asp et al., "Diethylstilbestrol Induces Metaphase Arrest and Inhibits Microtubule Assembly", <u>Mutation Research</u> , Vol. 143, pp. 231-235 (1985)
EH	✓	He, Hu-Ming et al., "A Versatile Synthesis of 2-Methoxyestradiol, an Endogenous Metabolite of Estradiol Which Inhibits Tubulin Polymerization by Binding to the Colchicine Binding Site" <u>Bioorg. Med. Chem. Lett.</u> , Vol. 4, No. 14, pp. 1725-1728 (1994)
EI	✓	Huber, et al., "Tubulin Binding of Conformationally Restricted Bis-Aryl Compounds", <u>Bioorg. Med. Chem. Lett.</u> , Vol. 1, No. 5, pp. 243-246 (1991)
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EK		Kabarity, et al., "Further Investigations on the cytological effects of some contraceptives" <u>Mutation Research</u> , Vol. 135, pp. 181-188 (1984)
EL	✓	Kelly, et al., "The Stimulation of Prostaglandin Production by Two Antiprogestosterone Steroids in Human Endometrial Cells" <u>J. Clin. Endocrinol Metab.</u> , Vol. 62, No. 6, pp. 1116-1123 (June 1986) (Abstract only)
EM		Klauber, et al., "Inhibition of Angiogenesis and Breast Cancer in Mice by the Microtubule Inhibitors 2-Methoxyestradiol and Taxol", <u>Cancer Research</u> , Vol. 57, pp. 81-86 (January 1, 1997)
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	FA	Lilopristone/ 1-[4-(Dimethylamino)phenyl]-17-hydroxy-17-(3-hydroxy-1-propenyl) estro-4, 9-dien-3-one; ZK 98734; <u>Dictionary of Drugs</u> , (1990), <u>Dictionary of Steroids</u> , (1991), <u>Dictionary of Organic Compounds</u> (6 th Ed. 1996), <u>Dictionary of Pharmacological Agents</u> (1997) (Identifier Only)	
	FB	Lin et al., "Interactions of Tubulin with Potent Natural and Synthetic Analogs of the Antimitotic Agent Combretastatin: a Structure—Activity Study", <u>Molecular Pharmacology</u> , Vol. 34, No. 2, pp. 200-208 (August 1988)	
	FC ✓	"Lincoln et al., "Conformation of Thiocolchicine and Two B-Ring-Modified Analogues Bound to Tubulin Studied with Optical Spectroscopy", <u>Biochemistry</u> , Vol. 30, No. 5, pp. 1179-1187 (1991)	
	FD	Lichtenauer, et al., "Zur Behandlung des Prostata-Karzinoms", <u>Deutsches Medizinisches Journal</u> , Vol. 23, pp. 148-249 (1972)	
	FE ✓	Lottering et al., "Effects of 17 β -Estradiol Metabolites on Cell Cycle Events in MCF-7 Cells", <u>Cancer Research</u> , Vol. 52, pp. 5926-5932 (November 1, 1992)	
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	FG ✓	Meikrantz, et al., "Apoptosis and the Cell Cycle", <u>J. of Cellular Biochem.</u> Vol. 58, pp. 160-174 (1995)	
	FH ✓	Miller, et al., "Synthesis and Structure-Activity Profiles of A-Homoestrans, the Estratropes", <u>J. Med. Chem.</u> , Vol. 40, pp. 3836-3841 (1997)	
	FI ✓	Miller, Thomas Allen "Tubulin as a Therapeutic Target", <u>DAI-B</u> , Vol. 59, No. 7, p. 3454 (January 1999) (Abstract Only)	
	FJ	Morgan, et al., "Calcium and Oestrogen Interactions upon the Rat Thymic Lymphocyte Plasma Membrane", <u>Biochemical and Biophysical Research Communications</u> , Vol. 72, No. 2, pp. 663-672 (September 20, 1976)	
	FK	Morgan, et al., CA 85:172052, 1976	
	FL ✓	Mukhopadhyay, et al. "Induction of Apoptosis in Human Lung Cancer Cells after Wild-Type p53 Activation by Methoxyestradiol", <u>Oncogene</u> , Vol. 14, pp. 379-384 (1997)	
	FM	Mukundan et al., "Liver Regeneration in Oral Contraceptive Treated Female Rats - Effects of Moderate Malnutrition", <u>Hormone and Metabolic Research</u> , Vol. 16, pp. 641-645 (December 1984)	
	FN	Nakamura et al., "Studies on the Total Synthesis of dl-Colchicine. I. Synthesis of 3-Hydroxy-9, 10, 11-trimethoxy-1,2,3,4,6,7-hexahydro-5H-dibenzo[a,c] cycloheptatrien-5-one", <u>Chem. Pharm. Bull.</u> , Vol. 10, pp. 281-290 (1962)	
	FO	Nakagawa-Yagi, et al., "The Endogenous Estrogen Metabolite 2-Methoxyestradiol Induces Apoptotic Neuronal Cell Death <i>In Vitro</i> ", <u>Life Sciences</u> , Vol. 58, No. 17, pp. 1461-1467 (1996)	

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	GA	Nambara, T., et al., "Studies on Steroid Conjugates. III. New Syntheses of 2-Methoxyestrogens" <u>Chem. Pharm. Bull.</u> , Vol. 18, No. 3, pp. 474-480 (1970)
	GB	Napolitano, et al., "11 Beta-Substituted Estradiol Derivatives. 2. Potential Carbon-11 and Iodine-Labeled Probes for the Estrogen Receptor", <u>J. Med. Chem.</u> , Vol. 38, No. 14, pp. 2774-2779 (July 7, 1995) (Abstract Only)
	GC	Nishigaki, et al., "Anti-Proliferative Effect of 2-Methoxyestradiol on Cultured Smooth Muscle Cells from Rabbit Aorta", <u>Atherosclerosis</u> , Vol. 113, pp. 167-170 (1995)
	GD	Numazawa M. et al., "Efficient Synthesis of 2-Methoxy- and 4-Methoxy-Estrogens" <u>J. Chem. Soc.</u> , pp. 533-534 (1983)
	GE	Oppolzer, et al., "177. The Enantioselective Synthesis of (+)-Estradiol from 1,3-Dihydrobenzo[c]thiophene-2,2-dioxide by Successive Thermal SO ₂ -Extrusion and Cycloaddition Reactions", <u>Helvetica Chimica Acta</u> , Vol. 63, pp. 1703-1707 (1980)
	GF	Parthasarathy, et al., "Antioxidant: A New Role for RU-486 and Related Compounds", <u>J. Clin. Invest.</u> , Vol. 94, No. 5, pp. 1990-1995 (1994) (Abstract Only)
	GG	Paull, et al., "Identification of Novel Antimitotic Agents Acting at the Tubulin Level by Computer-assisted Evaluation of Differential Cytotoxicity Data", <u>Cancer Research</u> , Vol. 52, pp. 3892-3900 (July 15, 1992)
	GH	Poli et al., "Tumor Necrosis Factor α Functions in an Autocrine Manner in the Induction of Human Immunodeficiency Virus Expression", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 87, pp. 782-785 (January 1990)
	GI	Rao, et al., "Structural Specificity of Estrogens in the Induction of Mitotic Chromatid Non-Disjunction in Hela Cells", <u>Experimental Cell Research</u> , Vol. 48, pp. 71-81 (1967)
	GJ	Rao, et al., "A Novel, Two-Step Synthesis of 2-Methoxiestradiol" <u>Synthesis</u> , pp. 168-169 (March 1977)
	GK	Ravindra, R., "Effect of Estradiol on the <i>in vitro</i> Assembly of Rat Brain Tubulin", <u>J. Indian Inst. Sci.</u> , Vol. 64, No. 3, pp. 27-35 (1983)
	GL	Sakakibara et al., "Effects of Diethylstilbestrol and its Methyl Ethers on Aneuploidy Induction and Microtubule Distribution in Chinese Hamster V79 cells", <u>Mutation Research</u> , Vol. 263, pp. 269-276 (1991)
	GM	Sato et al., "Effect of Estradiol and Ethynylestradiol on Microtubule Distribution in Chinese Hamster V79 Cells", <u>Chem. Pharm. Bull.</u> , Vol. 40, No. 1, pp. 182-184 (1992)
	GN	Sato et al., "Disruptive Effect of Diethylstilbestrol on Microtubules", <u>Gann</u> , Vol. 75, pp. 1046-1048 (1984)

Examiner
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Considered¹Unique citation designation number. ²Applicant is to place a check mark here if English language translation is attached.

Substitute for Form 1449/A/PTO		Complete if Known Applicant Number 09/644,387 Filing Date August 23, 2000 First Named Inventor Gregory Agoston, et al. Group Art Unit 1616 Examiner Name Badio, B. Attorney Docket Number 05213-0541 (43170-219662)	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			
Sheet	7	of	8

OTHER INFORMATION - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published
	HA	Sawada et al., "Colchicine-Like Effect of Diethylstilbestrol (DES) on Mammalian Cells in Vitro", <u>Mutation Research</u> , Vol. 57, pp. 175-182 (1978)
	HB	Seegers, J. C. et al., "The Cytotoxic Effects of Estradiol-17 β , Catecholestradiols and Methoxyestradiols on Dividing MCF-7 and HeLa Cells", <u>J. Steroid Biochem.</u> , Vol. 32, No. 6, pp. 797-809 (1989)
	HC	Sharp et al., "Diethylstilboestrol: the Binding and Effects of Diethylstilboestrol upon the Polymerisation and Depolymerisation of Purified Microtubule Protein <i>in vitro</i> ", <u>Carcinogenes</u> , Vol. 6, No. 6, pp. 865-871 (1985)
	HD	Spicer et al., "Catecholestrogens Inhibit Proliferation and DNA Synthesis of Porcine Granulosa Cells in Vitro: Comparison with Estradiol, 5 α -dihydrotestosterone, Gonadotropins and Catecholamines", <u>Molecular and Cellular Endocrinology</u> , Vol. 64, pp. 119-126 (1989)
	HE	Sternlicht et al., "Colchicine Inhibition of Microtubule Assembly via Copolymer Formation", <u>The Journal of Biological Chemistry</u> , Vol. 254, No. 20, pp. 10540-10550 (1979)
	HF	Sun et al., "Antitumor Agents. 139. Synthesis and Biological Evaluation of Thiocolchicine Analogs 5, 6-Dihydro-6(S)-(acyloxy)- and 5,6-Dihydro-6(S)-[(acyloxy)methyl]-1,2,3-trimethoxy-9-(methylthio)-8H-cyclohepta[a]naphthalene-8-ones as Novel Cytotoxic and Antimitotic Agents.", <u>J. Med. Chem.</u> , Vol. 36, pp. 544-551 (1993)
	HG	Sunagawa et al., "Synthesis of Colchicine; Synthesis of <i>dl</i> -Demethoxydeoxy-hexahydrocolchicine", <u>Chem. Pharm. Bull.</u> , Vol. 9, pp. 81-83 (1961)
	HH	Teranishi, Masonori, et al., "Methylation of Catechol Estrogen with Diazomethane", <u>Chem. Pharm. Bull.</u> , Vol. 31, No.9, pp. 3309-3314 (1983)
	HI	Tishler, et al., "Microtubule-Active Drugs Taxol, Vinblastine, and Nocodazole Increase the Levels of Transcriptionally Active p53", <u>Cancer Research</u> , Vol. 55, pp. 6021-6025 (December 15, 1995)
	HJ	Tsutsui et al., "Comparison of Human Versus Syrian Hamster Cells in Culture for Induction of Mitotic Inhibition, Binucleation and Multinucleation, Following Treatment with Four Aneuploidogens", <u>Toxic in Vitro</u> , Vol. 4, No. 1, pp. 75-84 (1990)
	HK	Utne, T., et al. "The Synthesis of 2-and 4-Fluoroestadiol", <u>Journal of Organic Chemistry</u> , Vol. 33, No. 6, pp. 2469-2473 (June 1968)
	HL	Van Geerestein, et al. "Structure of 11.beta.-(4-(dimethylamino)phenyl)-17.beta.-hydroxy-17.alpha.-(2-propenyl)estra-4, 9-dien-3-one, <u>Acta Crystall Ogr., Sect. C: Cryst. Struct. Commun.</u> , Vol. C43, No. 2, pp. 319-322 (1987) (Identifier Only)
	HM	Van Tamelen et al., "The Synthesis of Colchicine", <u>Tetrahedron</u> , Vol. 14, p. 8-34 (1961)

Examiner Signature		Date Considered	
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STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 8 of 8

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Application Number	09/644,387
Filing Date	August 23, 2000
First Named Inventor	Gregory Agoston, et al.
Group Art Unit	1616
Examiner Name	Badio, B.
Attorney Docket Number	05213-0541 (43170-219662)

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Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published

Examiner Initials	Cite No. ¹		
	IA	Wang, Zhiqiang, et al., "An Optimized Synthesis of 2-Methosyestradiol, a Naturally Occurring Human Metabolite with Anticancer Activity" <u>Synth. Commun.</u> Vol. 28, No. 23, pp. 4431-4437 (1998)	
	IB ✓	Wheeler, W. J. et al., "Mitotic Inhibition and Aneuploidy Induction by Naturally Occurring and Synthetic Estrogens in Chinese Hamster Cells in Vitro", <u>Mutation Research</u> , Vol. 171, pp. 31-41 (1986)	
	IC ✓	Wheeler, W. J. et al., "Mitotic Inhibition and Chromosome Displacement Induced by Estradiol in Chinese Hamsters Cells", <u>Cell Motility and the Cytoskeleton</u> , Vol. 7, No. 3, pp. 235-247 (1987)	
	ID ✓	Yue, et al., "2-Methoxydestradiol, an Endogenous Estrogen Metabolite, Induces Apoptosis in Endothelial Cells and Inhibits Angiogenesis: Possible Role for Stress-Activated Protein Kinase Signaling Pathway and Fas Expression", <u>Molecular Pharm.</u> Vol. 51, pp. 951-962 (1997)	
	IE	Guangrong, et al., "Effect of Components of Crown Ether Copper(I)Iodide Mixed Catalyst on Nucleophilic Substitution of Bromoestrogen" <u>Chemical Abstracts</u> , Vol. 111, No. 21, Abstract No. 195225, page 818, Column 1, (November 20, 1989)	
	IF ✓	<u>The Merck Index</u> , 11 th Edition, paragraphs 583-584, pp. 88 (1989)	
	IG	Ochs, et al., "Effect of Tumor Promoting Contraceptive Steroids on Growth and Drug Metabolizing Enzymes in Rat Liver", <u>Cancer Res.</u> , Vol. 46, No. 3, pp. 1224-1232 (1986) (Abstract)	
	IH	Mayol, et al., "Ethinylestradiol- Induced Cell Proliferation in Rat Liver Involvement of Specific Populations of Hepatocytes", <u>Carcinogenesis</u> , Vol. 12, No. 12, pp. 2381-2388 (1992) (Abstract)	

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